Quality Control

NCR:	es/	/ No					WORK ORDER NON-C	O	NFOR!	MANCE / UPI	DATE			D - 4	•	
						_						QA	Closed:	Dat	e:	
						۱	DISPOSITION	ļ			AGAINST DEPARTMENT/PROCESS					
Nork Orde	er: _					ļ	Rework	1	Skid-tube Crosstube			\neg		Water Jet	\neg	Engineering
Dort N	ما					İ	Scrap	1	Skid-tube Crosstube Machining Small Fab						\dashv	Quality
Part N	NO					1	Use-as-is	1 1	Thermoforming Finishing			→			ᅴ	Other
NCR I	dο					١	Work Order Update	1		Large Fab	Composite	-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Supplier	ᅱ	
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-		-			١		١ ا								
Root					Desc	rip	tion of work order update	Ī	nitial	Act	ion	S	ign &			
Cause		Date	Step	Qty		o	r Non-conformance	Ch	ief Eng	Descr	ription		Date	Verification	<u>1</u>	QC Inspector
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Landi					Г	\neg	General		1 _{0:-}		F	\neg	alized	:	Г	Pressure/Forced
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	-	Centre No Cracks	or Concei	TITIC TO	U/3 -	\dashv	BOM/Route Broken/Damaged	-	Hardwa	ire ion Incomplete	}		t Incorre		_	Weld
	\vdash	Cracks Crushed/0	Crimana		}	\dashv	Burrs	\vdash	4	ion incomplete/l	Unclear		t lincome t Lost/M		\vdash	Wrong Stock Pulled
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	Н	Cums Heat Trea	^		-	\dashv	Countersink	-	Mislabe		}	!				
		Inspection		Tube	-	Cut Too Short Misread				Ì	Positioned Wrong Power Loss/Surge Other			Other		
	—	Ripples in	•	TUDE	}		Drill Holes	Offset				2033/	B-	<u> </u>	1	
	$\boldsymbol{\vdash}$	Torque W		Extrusio	, t		Drawing		4	Calibration						
		Turning S			·		Finish	Out of Sequence								

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Folio

Work Orde February-21-13				*976	79*			Page 2
Item ID: Revision ID: Item Name:	D3031-1			Accept	*N90004010	70* Setup	Start Stop	*NS1* *NS2*
	2/21/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item ID: Customer:			IVIAZ
Approvals:		an:	Date:	Tooling: SPC (Y/N):	Date:	Run	Start Stop	*NR1* *NR2*
Sequence ID/ Work Center II 130 *120* Powdercoat Powder Coating W		Operation Description Grey Sandtex(Ref: 4.3.5.6) Memo START TIM 3 0 0 QC3- Inspect Part Finish Memo	E: EINISH TIME:	Set Up/ Run Hours 0.00 0.00 OVEN TEMPERATURE 0.00 0.00	Tool ID Tool # Pla Co		y I	Reject Insp. Number Stamp 1/13/03/2
150 *150* Packaging Packaging		Identify as per dwg & St Memo	ock Location:	0.00		20× -		13-3-2

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	CON	FORN	MANCE / UP		QA Closed:	Date:	
Work Ord	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
	Part No					Rework Scrap Use-as-is Work Order Update		f Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other
Root					Descri	ption of work order update	In	itial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Chie	ef Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	П												
Equip/Tooling													
Operator													
Material													
Setup													Į
Other													Į

General **Landing Gear** Grain Pressure/Forced Bend Ovalized Bending BOM/Route Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Hardware Cracks Broken/Damaged Inspection Incomplete Part Incorrect Weld Wrong Stock Pulled Instructions Incomplete/Unclear Part Lost/Missing Crushed/Crimped. Burrs Cuffs Contamination Maintenance Part Moved Positioned Wrong Mislabeled Heat Treat Countersink Other Misread Power Loss/Surge Inspection Strip in Tube Cut Too Short Drill Holes Offset Ripples in Bend Drawing Out of Calibration Torque Waves in Extrusion Finish Out of Sequence Turning Sequence

Outside Dimensions

FAULT CATEGORY

Wave/Twist in Tube

Folio

Process Supplier Training Unapproved

Work Orde February-21-13				*976	379*							Page 3
Revision ID:	D3031-1 Loop			Accept	*N900	040	100)*	Setup	Start Stop		S1* S2*
Start Date: Required Date: Reference:	2/21/13 3/08/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	D:						· • • • · · · · · · · · · · · · · · · ·
Approvals:	Process I	Plan:	Date:	Tooling: SPC (Y/N):		ate:			Run	Start Stop	*NI *NI	R1* R2*
Sequence ID/ Work Center II 160 *160*)	Operation Description QC21- Final Inspection -	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Re Qt	-	Reject Number	Insp. Stamp
QC Quality Control		Memo		0.00						-	•	M

es / No			. 	WORK ORDER NON-	CONFOI	RMANCE / U		QA Closed:	Date:	
0				Rework Scrap Use-as-is Work Order Update	The	Skid-tube Machining rmoforming Large Fab	Crosstube Small Fab Finishing Composite	4	—	Engineering Quality Other
Date	Step	Otv		•	1	1		Sign & Date	Verification	QC Inspector
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g Gear		. i			AUL! CA	IEGONI				
Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence				Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	Hard Inspe Instru Mair Misla Misro Offse Out of	ware ection Incomplete uctions Incomplet ntenance ubeled ead et of Calibration	<u> </u>	Part Incorre Part Lost/M Part Moved Positioned N	ct issing Wrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	g Gear Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in Torque W Turning S	Date Step Date Step Gear Bending Centre Not Concer Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Ripples in Bend Torque Waves in E Turning Sequence	Date Step Qty Date Step Qty Gear Bending Centre Not Concentric to C Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion	g Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence	DISPOSITION Rework Scrap Use-as-is Work Order Update Date Step Qty Description of work order update or Non-conformance General Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Disposition Rework Scrap Use-as-is Work Order Update or Non-conformance Bend Bend BoM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish	DISPOSITION Rework Scrap Use-as-is Work Order Update Date Step Qty Or Non-conformance Chief Er Bending General Bend Grain General G	DISPOSITION Rework Scrap Wachining Thermoforming Large Fab Date Step Qty Description of work order update Initial Chief Eng De Date Step Qty Or Non-conformance Chief Eng De FAULT CATEGORY General Bending Bend Grain Centre Not Concentric to O/S BOM/Route Hardware Cracks Broken/Damaged Inspection Incomplete Inspection Incomplete Crushed/Crimped Cout minimation Maintenance Heat Treat Countersink Mislabeled Inspection Strip in Tube Cut Too Short Misread Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Sequence Turning Sequence Finish Out of Sequence Torque Waves in Extrusion Turning Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Waves in Extrusion Out of Sequence Torque Waves in Extrusion Drawing Out of Sequence Torque Wav	Bending Centre Not Concentric to O/S Gracks Cracks	See / No WORK ORDER NON-CONFORMANCE / UPDATE OA Closed: DISPOSITION Rework Skid-tube Crosstube Small Fab Pro Machining Small Fab Pro Machining Small Fab Rec/Store Machining Small Fab Pro Machining Machining Machining Pro Machining Machining Machining Pro Machining Machining Machining Pro Machining Machining Machining Machining Pro Machining DISPOSITION Rework Scrap Use-as-is Work Order Update One Non-conformance Date Step Qty Or Non-conformance Bending Bend General Bending Bend General Bending Bend General Centre Not Concentric to O/S BOM/Route Broken/Damaged Instead Concentric to O/S Broken/Damaged Instead Consensible Concentric to O/S Broken/Damaged Instead Contentric to O/S Contentric Contentric to O/S Contentric Content	

Ricklist Print

February-21-13 12:40:07 PM

Work Order ID:

97679

Parent Item:

D3031-1

Parent Item Name:

Loop

Start Date: 2/21/13

Required Date: 3/08/13

Page 1

Start Qty: 12.00

Required Qty: 12.00

Comments:

IPP A01.05.30New IssueEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
6411G		Purchased	No			100	Each	0.0000	1	رکیلر	2		
LOOP										્ર &	<u> </u>		

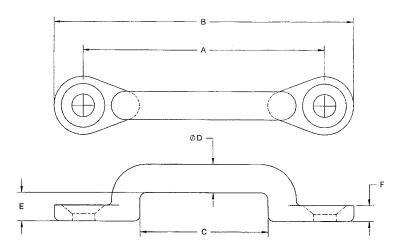
/43/3/13 E

NCR: Y	'es	/ No				WORK ORDER NON-	CON	NFORN	//ANCE / UP	DATE			
											QA Closed:	Date:	
Work Orde	r:					DISPOSITION				AGAINST DE	PARTMENT/		
Part N	Part No.				Rework Scrap Use-as-is	-	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing				Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other	
NCR N	NCR No.					Work Order Update		Large Fab Composite			inceg stat		
Root					Descri	ption of work order update	I	nitial	Ac	ction	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
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upplier													
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inapproved												L	
						<u> </u>	AUL	T CATE	GORY				
Landi	ng G	ear				General		-			7		
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route	L	Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/0	Crimped.			Burrs		Instruct	ions Incomplete,	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	it			Countersink		Mislabe	eled		Positioned V	Vrong	
	П	Inspection	n Strip in	Tube		Cut Too Short		Misread	d .		Power Loss/	Surge	Other
		Ripples in	Bend			Drill Holes		Offset					
	\Box	Torque W	aves in E	xtrusio	n	Drawing		Out of (Calibration				
	-	Turning S				Finish		Out of 9	Sequence				
	-	Wave/Tw				Folio	Outside Dimensions						

DQA:

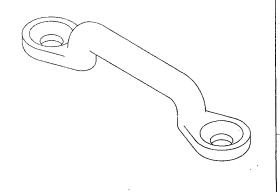
Date:

SPECIFICATION CONTROL DRAWING



D3031-X LOOP

L	DART P/N	Α	В	С	ØΦ	E	F	FINISH	WEIGHT	SUPPLIER	SUPPLIER P/N
	D2024 4	2.40	2.24	2.00			0.40	POWDER COAT GREY (4.3.5.6)	0.061.86	THOMAS HARDWARE	TH73
1	D3031-1	3.13	3.64	2.09	0.25	0.31	0.16	POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3	0.06 LBS	AUSTIN HARDWARE	6411G
Γ	D3031-3	2.13	2.64	1.12	0,25	0.25	0.14	NONE	0.04 LBS	AUSTIN HARDWARE	AH 6411-B



PICTY * JURNITO INGINITY G CACONTROLL FD CO2Y Talketter of the Allthough WEDSON MOTICE

97679 MCJ 13-02-26

В	ADD D3 STANDA		PDATE FORMAT TO CURRENT	PH	09.04.14		
Α	NEW IS:	SUE	CP	01.05.18			
REV.			DESCRIPTION	BY	DATE		
DESIG	N	CP	DART AEROSE	ACEL	TD		
DRAW	N	PH	HAWKESBURY, ONTA				
CHECH	ŒD	b	DRAWING NO.		REV. B		
MFG. A	PPR.	N/A	D3031		SHEET 1 OF 1		
APPRO	VED	JUN	TITLE		SCALE		
DE AP	PR.	-11-	LOOP		NTS		
DATE	09.0	4.14	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IN PRIVATE AND CONTINUENTIAL AND IS SUPPLED ON THE EVPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE ON ECONOMIC PROPERTY OF ANY PURPOSE ON EPODD OF COMMENCENTED TO ANY DISER PERSON WITHOUT WHITTEN PRIVATED ON PARTY AND PARTY AEROSPACE LTD.				

NOTES:
1) MATERIAL: N/A
2) FINISH: SEE TABLE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: NONE
7) WEIGHT: SEE TABLE



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19233

Purchase Order Date 3/04/13 PO Print Date 3/04/13

Page Number 1 of 1

Order From:

VU-ROY001

VISA

PAYMENT CENTRE, PO BOX 4016, STAT. A

TORONTO,

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

Buyer

Requisition Nbr

Tax Resale Nbr Terms

Currency

FOB

Chantal Lavoie

10127-2607

COD

USD

Destination-Collect

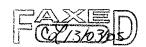
Ship To:

DART AEROSPACE LTD

1270 ABURDEEN

HAWKE JURY, ON K6A 1K7

CANAL



Extended Req Qty/ Ship Method **Unit Price** Line Nbr Reference Description/ Req Date/ Price Taxable Unit of Measure Mfg ID **Revision ID** Vendor Part Number \$1.5980 \$31.96 20.00 FedEx PI collect 3/08/13 6411G LOOP Each Yes

pecial ast: AS PER DWG D3031 REV. B B97679 AUSTIN HARDWARE P/N: 6411G

PO Total:

\$31.96



PO Instructions:

AUSTIN HARDWARE

VISA: 4514 0310 0909 0347 EXP:11/13 CIQ 1 0

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required YES

Change Nbr:

Change Date: 3/04/13

Packing List

Ship From:

AUSTIN HARDWARE

1001 ROCKLAND ST.

READING, PA 19604 Mst:

Order Number:

Account:

10235

4080239

Customer PO:

Order Date: 03/06/13

Entered By: ELARSON

Released By:

ELARSON Credit Card

Bill To:

DART AEROSPACE LTD 1270 ABERDEEN ST

HAWKSBURY. ON K6A 1K7

Terms: Ship To:

> DART AEROSPACE 1270 ABERDEEN STT

HAWKSBURY, ON K6A 1K7

Ship Via: FEDEX Ground 15179324-0

Part Number

Description

Weight **UOM** Ordered

Shipped 20

FOOTMAN LOOP

1.294

EΑ

20

Assigned: jgollub

501

Certificate of Conformance This is to certify that the above items were supplied in accordance with the description and as illustrated in the catalog

Califo nia | Georgia | Idaho | Indiana| Missouri | Pennsylvania | Texas | Wisconsin

www.austinhardware.com

Bill H. Stambaugh Executive Vice President